

CLAIMS

What is claimed is:

1. A lighting fixture to illuminate a line of light, the lighting fixture comprising:
 - (a) a base;
 - (b) a plurality of LEDs (Light Emitting Diodes) mounted on the base, the LEDs being aligned sequentially in a line; and
 - (c) an elongated rod focusing lens, spaced from and parallel to the LEDs and adapted to focus light from the LEDs into a line of light.
2. A lighting fixture as in Claim 1 and the fixture also comprising a reflector extending from the base to the focusing lens.
3. A lighting fixture as in Claim 2 wherein the reflector comprises two opposite curved walls having reflective surfaces.
4. A lighting fixture as in Claim 1 wherein the LEDs are uniformly spaced and the spacing from the LEDs to the focusing lens being in the range of $2.5D$ to $3.5D$, where (D) equals the diameter of the rod.
5. A lighting fixture as in Claim 1 wherein the LEDs are aligned in a straight row and the focusing lens is a glass or polymer plastic straight rod.
6. A lighting fixture as in Claim 1 wherein the lens is selected from the group consisting of: transparent rods, colored translucent rods, rods with surface treatment to diffuse light and rods with internal materials to diffuse light.
7. A lighting fixture to illuminate a line of light, the lighting fixture comprising:
 - (a) a base;
 - (b) a plurality of at least three LEDs (Light Emitting Diodes) mounted on the base, the LEDs being aligned sequentially in a line;

- (c) a first elongated rod focusing lens spaced from and parallel to the LEDs and adapted to focus light into a line of light; and
 - (d) a second elongated rod focusing lens may be added, spaced from and parallel to the first focusing lens and adapted to focus light onto the first focusing lens.
8. A lighting fixture as in Claim 7 and the fixture also comprising a reflector extending from the base to the first focusing lens.
 9. A lighting fixture as in Claim 8 wherein the reflector comprises two opposite curved walls having reflective surfaces.
 10. A lighting fixture as in Claim 7 wherein the LEDs are uniformly spaced, the spacing from the LEDs to the second focusing lens being in the range of **0.5D** to **1.5D** and the distance between the first focusing lens and the LED's being in the range of **2.5D** to **3.5D**.
 11. A lighting fixture as in Claim 7 wherein the LEDs are aligned in a straight row.
 12. A lighting fixture as in Claim 7 wherein each of the lenses is selected from the group consisting of:
transparent rods, colored translucent rods, rods with surface treatment to diffuse light and rods with internal materials to diffuse light.
 13. A lighting fixture to illuminate a line of light, the lighting fixture comprising:
 - (a) a base;
 - (b) a plurality of at least three LEDs (Light Emitting Diodes) mounted on the base, the LEDs being aligned sequentially in a line;
 - (c) a first elongated rod focusing lens spaced from and parallel to the LEDs and adapted to focus light into a line of light;
 - (d) a second elongated rod focusing lens spaced from and parallel to the first focusing lens and adapted to focus light onto the first focusing lens;
 - (e) a battery; and

(c) a switch which electrically connects the battery to energize the LEDs upon loss of AC power.

14. A lighting fixture as in Claim 13 and the fixture also comprising a reflector extending from the base to the first focusing lens.
15. A lighting fixture as in Claim 13 wherein the reflector comprises two opposite curved walls having reflective surfaces.
16. A lighting fixture as in Claim 13 wherein the LEDs are uniformly spaced, the spacing from the LEDs to the second focusing lens being in the range of **0.5D** to **1.5D** and the distance between the first focusing lens and the LED's being in the range of **2.5D** to **3.5D**.
17. A lighting fixture as in Claim 13 wherein the LEDs are aligned in a straight row.
18. A lighting fixture as in Claim 13 wherein each of the lenses is selected from the group consisting of:

transparent rods, colored translucent rods, rods with surface treatment to diffuse light and rods with internal materials to diffuse light.
19. A lighting fixture as in Claim 17, the fixture further comprising the second elongated focusing lens being positioned between the first lens and the LEDs and being a straight rod .
20. A lighting fixture as in Claim 13 wherein the battery is rechargeable and the fixture includes a battery charger.
21. A lighting fixture as in Claim 20 wherein the lenses are glass or polymer plastic straight rods and the LEDs are aligned in a straight row.